DELMARVA POWER & LIGHT COMPANY

BEFORE THE
DELAWARE PUBLIC SERVICE COMMISSION
DIRECT TESTIMONY OF MICHAEL W. MAXWELL
DOCKET NO. _____

Q1. Please state your name and position.

A1. My name is Michael W. Maxwell, Vice President Asset Management for Pepco Holdings, Inc. (PHI). I am testifying on behalf of Delmarva Power & Light Company (Delmarva or the Company).

Q2. What are your responsibilities in your role as Vice President, Asset Management?

A2. I am responsible for reliability planning for all distribution, transmission and substation facilities for PH utility companies. I am also responsible for the engineering and design of the transmission and substation facilities constructed by PHI. The PHI utility companies include Delmarva, Atlantic City Electric Company and The Potomac Electric Power Company.

Q3. Please state your educational background and professional experience.

A3. I received a Bachelor of Science in Electrical Engineering from the Virginia Military Institute in 1987. I have held various operations, engineering, and logistic/support services positions at PHI.

I began my career at Pepco in 1987 in substation engineering and was promoted to various positions within substation engineering and field operations until 1997. Subsequently, I have held positions as Manager, Forestville Service Center (overhead lines operations, maintenance, and construction); Manager, Distribution System Operations (remote operation of the Pepco distribution system); General Manager, System Operations;

Vice President Emergency Preparedness; and Vice President, Strategic Services. I have served as Vice President, Asset Management since June 2008.

Q4. What is the purpose of your Direct Testimony?

A4. The purpose of my testimony is to:

- Provide information supporting the Delmarva construction program and the Company's progress in enhancing the reliability of its distribution system.
- Support the Reliability Plant Adjustment as presented in Company Witness Ziminsky's Direct Testimony
- Demonstrate that the Company's reliability investment is appropriate and necessary.

This testimony was prepared by me or under my direct supervision and control. The sources for my testimony are Company records, and public documents. I also rely upon my personal knowledge and experience.

DELMARVA'S CONSTRUCTION PROGRAM

Q5. Please describe the Company's construction program.

A5. The Delmarva construction budgets for 2012 and 2013 total $374.4 million. The 2012 Delmarva distribution budget was $75.4 million and has been increased to $87.8 million in 2013 for a total of $163.2 million.

The 2012 and 2013 distribution projects include investments that support the connection of new customers, projects that maintain and improve the reliability of the electric system and projects to accommodate increased load. These projects are further explained below.

Q6. Please describe the types of projects included in the distribution category.

A6. The distribution category of the construction budget is composed of three areas of work: Customer Driven, Reliability, and Load Growth.

The Customer Driven category represents projects required by customers, including, but not limited to new service connections, service rearrangements and heavy ups, and work performed at the direction of government agencies such as electric plant relocations that support road and highway construction projects.

The Reliability category reflects the construction of assets designed to maintain and enhance the reliability of the electric system. These projects include the upgrading of distribution feeders, replacing and upgrading Underground Residential Distribution (URD) cable installations, substation improvements and the installation of new technology and equipment such as Distribution Automation (DA) systems. DA devices are installed on groups of related feeders, and can automatically identify and isolate faults quickly and restore service to customers in the unaffected parts of the system. DA enhances reliability by isolating outage locations and minimizing the overall impacts (reducing the length) of outages to customers.

In 2012 and in 2013 Delmarva increased efforts to improve feeder performance through the Priority Feeder and Feeder Improvement programs. The Annual Priority Feeder program is designed to improve System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) performance of the system's lowest-performing feeders in accordance with Delaware Public Service Commission Regulation Docket No. 50. The Feeder Improvement program identifies feeders not previously identified in the Priority Feeder program that demonstrate lower reliability performance and feeders

where specific customers have experienced a relatively higher level of repeat interruptions[1]. By addressing the reliability of these worst-performing feeders, the two feeder remediation programs intend to maintain and improve the experience of all Delmarva customers over time.

Load Growth projects include upgrading of existing feeders to increase their capacity to serve projected load of exiting customers, construction of new feeders in areas of the system where customer growth is occurring, and installation of substation equipment to provide additional electric capacity. Load Growth projects seek to maintain the Company's ability to transfer load and maintain continuity of service under various operating conditions, including both summer and winter peak load conditions.

Q7. Please discuss the Delmarva 2012 construction budget, and the 2013-2017 construction plan.

A7. The Delmarva 2012 expenditures and 2013 -2017 plan are presented in Table 1.

1 Based on Customers Experiencing Multiple Interruptions (CEMI) performance.

Delmarva Delaware
2012 Expenditure
and
Five Year Plan 2013 – 2017
Dollars in Millions

Table 1

Distribution	2012	2013	2014	2015	2016	2017	Total 2013 through 2017
Customer Driven	$12.6	$12.1	$11.9	$12.1	$12.6	$13.0	**$61.7**
Reliability	$64.1	$71.4	$58.9	$59.2	$60.3	$59.2	**$309.1**
Load	$2.8	$4.3	$6.1	$4.2	$4.5	$7.4	**$26.6**
Total	**$79.5**	**$87.8**	**$76.9**	**$75.7**	**$77.4**	**$79.6**	**$397.4**

The five year Reliability construction plan, 2013 through 2017, presents a balanced investment program aimed at maintaining the Company's improvement to distribution system reliability performance. Maintaining reliability performance requires continuing investment in the system. System performance cannot be maintained and improved without the ongoing replacements of system infrastructure, upgrades to the system's capacity to serve load, as well as the introduction of new technologies, such as Distribution Automation, that can shorten outage durations where this technology has been installed and meet the evolving needs of Delmarva's customers and the modern, electronics-based economy.

Q8. Have the Company's investments in reliability infrastructure improved its system reliability performance?

A8. Yes. The Company's investments in reliability infrastructure have improved the Company's performance as measured by SAIFI and SAIDI. From 2010 to 2012, Delmarva's system SAIFI performance has improved by 22%, and, during the same period, Delmarva's

system SAIDI performance has been improved by 27%. Table 2 illustrates these improvements.

Delmarva Delaware
System SAIFI and SAIDI (IEEE Exclusion Criteria)
2010-2012

Table 2

Reliability Performance	2010	2011	2012	% Change 2010-2012
SAIFI	1.47	1.41	1.14	22%
SAIDI	199	192	146	27%
Docket No. 50 SAIDI Performance Target	295	295	295	n/a

Q9. What metrics does the Company use to judge the effectiveness of its reliability program?

A9. The Company uses two approaches when it looks at its reliability performance: compliance with Delaware PSC Electric Service Reliability and Quality Standards (also known as Docket No. 50), and year over year performance comparisons of system and individual feeder SAIFI and SAIDI data.

Q10. How has the company performed against the Electric Service Reliability and Quality Standards?

A10. The Electric Service Reliability and Quality Standards (also known as Docket No. 50) establish a maximum SAIDI target of 295 minutes per year. Delmarva acknowledges that in 2012 it is meeting and exceeding its Electric Service Reliability and Quality Standards SAIDI requirement of 295 minutes per year by 149 minutes, or approximately 51%. However, the

Company sees the standard as a minimum performance standard for meeting the expectations of its customers and will continue to seek to perform above the minimum standard. Delmarva does not believe that it should be satisfied merely with meeting the minimum performance standard, nor do we believe that striving to meet the minimum is the best approach for Delmarva's customers or the State.

Q11. What is the objective of Delmarva's Reliability plan?

A11. The Company's goal is to continue to provide safe and reliable electric distribution service to its customers. This entails striving for improvement by investing in, and improving, its distribution system. The safety and reliability performance of the system is not linear with respect to investment in the system and the productivity of those investments; necessary investments will not always result in a similar improvement in performance. The distribution system is aging and regularly experiences damaging events beyond the Company's control, but which require remediation to maintain reliability performance. While severe weather events are generally excluded from the calculation Delmarva's reliability performance statistics, the system is impacted by severe weather that weakens the system and leads to increased outages at later dates.

Similarly, we must expect that there will be weather events that fall just short of constituting excludable events. Outages resulting from damaging events are most effectively limited by continuous maintenance and improvement of the system.

Q12. What should customers expect from the Delmarva reliability program?

A12. Customers should expect continuing improvements in the reliability of the service they receive. They should expect reliable and safe performance along with fewer outages, and, when they do experience inevitable interruptions in service, shorter restoration times.

Maintaining system reliability is not just good business practice. In today's electronics based-economy, electric system reliability is a minimum requirement for businesses in evaluating opportunities for economic investment, development and growth. Businesses do not want to locate in an area where system performance is poor. In addition, system reliability is necessary to meet customer expectations.

Further, the improvement to reliability will help attract new customers to Delaware. Large commercial and industrial customers, large retailers, electronic commerce such as banking and data centers, and other businesses depend on reliable electric service to function competitively in the modern digitally-based economy. A community that has reliable electric service is more likely to attract, maintain and grow these businesses than one that does not.

Q13. **How does Delmarva's Reliability program support the Reliability Plant Adjustment presented in the Direct Testimony of Company Witness Ziminsky?**

A13. The Company is requesting that the Commission approve the cost recovery method identified in Adjustment 26. This adjustment reflects the continuing improvements that the Company is accomplishing in its reliability program and are provided to customers with the completion of every reliability asset that the Company puts in place.

Q14. Does this conclude your Direct Testimony?

A14. Yes, it does.